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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,063	02/04/2004	Murray S. Toas	D0932-00447	5057

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EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,063

Applicant(s)

TOAS ET AL.

Examiner

Matthew D. Matzek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/4/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 20-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 38-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/19/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19, and 38-41, drawn to building insulation, classified in class 442, subclass 149.
- II. Claims 20-29, drawn to a process of making insulation, classified in class 139, subclass 383A.
- III. Claims 30-37, drawn to method to controlling fungal growth, classified in class 43, subclass 124+.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions for Group II and Group I are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the processes described may be used to create numerous insulation products and are not limited to antifungal or antimicrobial insulation products, since there is no manipulative step for providing anti-fungal/-microbial agents claimed.

2. Inventions for Group I and Group III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that

product (MPEP § 806.05(h)). In the instant case a number of different methods including a spray coating process on the cellulosic facing may be used to control the growth of fungi or mildew in an insulation product.

3. Inventions for Group II and III are related as process of making and process of using the product. The use as claimed cannot be practiced with a materially different product. Since the product is not allowable, restriction is proper between said method of making and method of using. The product claim will be examined along with the elected invention (MPEP § 806.05(i)).

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Peter Cronk on 9/21/04 a provisional election was made with traverse to prosecute the invention of the insulation product, claims 1-19, and 38-41. Affirmation of this election must be made by applicant in replying to this Office action. Claims 20-29 and 30-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

6. The disclosure is objected to because of the following informalities: following the withdrawal of claims 20-37 there are no longer claims associated with a process of making an insulation product having antimicrobial/antifungal facing, or facing for same, therefore the title of the application must be changed to properly reflect the invention set forth in the application.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements (MPEP § 2172.01). The omitted element is: the independent claim number upon which claim 7 is dependent. For the remainder of this action claim 7 is treated as if it is dependent upon independent claim 1. This assumption has been made based upon the fact claim 7 provides further limitation for a building insulation and there are no other independent claims preceding dependent claim 7. Additionally, claim 7 employs improper Markush language in that the agent is required by the current language to include all of the recited compounds simultaneously. Since such combination is not supported it appears Applicant intended alternative language. Correction may be made by changing “comprises” to “ is selected from the group consisting of”. However, the use of “derivations, homologues, and combinations” would be improper under Markush rules (MPEP § 2173.05(h)).

8. Claim 7 contains the trademark/trade name MICROBAN ®. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4, 7-12, and 38-40 are rejected under 35 U.S.C. 103(a) as obvious over McGrath et al. (US Patent 6,399,694). McGrath et al. disclose a fiberglass insulation comprising glass fibers, binder, and biocide (Abstract). The applied patent also teaches that a paper facing may be applied to the insulation layer, but is silent as to how the facing is adhered to the layer of insulation (column 1, lines 40-41). A skilled artisan would have found it obvious to look to prior art for conventional techniques; motivated by the expectation of successfully practicing the invention of McGrath et al.

10. Long et al. (US Patent 3,998,944) disclose that a paper or cellulosic facing is preferably attached to gypsum wallboard and other building materials with the application of an intermediate adhesive layer (Abstract and column 4, lines 15-26). Therefore, a person having ordinary skill in the art at the time of the invention was made would have found it obvious to have employed an adhesive (i.e. polymeric or bituminous) to adhere the paper facing to the insulation layer.

11. The biocide disclosed by McGrath et al. is silver zeolyte, which is commonly used in protecting food packages through its release of silver and is sold as KATHON®, by ROHM AND HAAS®, a biocide fungi-growth inhibiting agent designed for insulation articles. As it is commonly used in protecting food packages the said biocide is presumed to be nontoxic and noncarcinogenic to humans. The patent discloses that the biocide is preferably applied to the layer of insulation, may also be applied to the paper facing covering the insulation (Abstract and

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column 4, lines 56-57). Regardless of the location of the biocide application the function of the biocide is to prevent microbial growth in the insulation material.

12. The R-values disclosed in Applicant's claim 8 are consistent with those of common fiberglass insulation articles (<http://www.furnacecompare.com/faq/definitions/insulation.html>, 10/15/04). Insulation capability (R-value) is generally given on a per inch basis and a final R-value is calculated by multiplying the R-value per inch by the total thickness of the insulation. Fiberglass batts have an average R-value of 3.25 per inch and are known to have total R-values up to 30 (<http://www.progress-energy.com/aboutenergy/learningctr/savingtips/rvalues.asp>, 10/15/04). McGrath et al. disclose a fiberglass insulation comprising fiberglass, binder and biocide, but are silent as to the R-values of said invention. It is reasonable, however to presume that since the prior art meets the physical and chemical limitation of fiberglass batts and the body of the claim the said featured property is inherent to said insulation article thus providing the present invention the desired physical properties.

13. McGrath et al. disclose a fiberglass insulation comprising glass fibers, binder, and biocide, however do not explicitly suggest that the claimed article passes ASTM C1338 when exposed to a microorganism, contains a biocidal agent comprising of at least two synergistic biocides, or contains an antifungal/antimicrobial agent at a level of 3-180 ppm. The present patent is also silent as to the slimicidal properties of the disclosed biocide. It should be noted that optimizing the amount and type of biocide included in the insulation article or restraining its content within set values is a result effective variable. For example, optimizing the biocidal content would directly affect the ability of the insulation article to prevent microbial growth. Therefore, it would have been obvious for a person having ordinary skill in the art at the time the

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invention was made to have made the insulation article of McGrath et al. able to pass ASTM C1338, the applied biocide comprise of at least two synergistic biocides, or contain an antifungal/antimicrobial agent at a level of 3-180 ppm. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the amount and type of antifungal/antimicrobial, motivated by the desire to obtain an insulation article that is resistant to fungal or microbial growth.

14. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath et al. in view of Gluck et al. (US Patent 4,764,420). McGrath et al. teaches a paper facing can be applied to the insulation layer, but is silent as to the specifics of said paper (column 1, lines 40-41). As such, it is necessary and therefore obvious for the skilled artisan to look to the prior art for suitable paper, motivated by the expectation of successfully practicing the invention of McGrath et al. To that end, Gluck et al. disclose an insulating laminate comprising a plastic foam core and fibrous sheet covering, but does not contain randomly oriented inorganic fibers bonded together with a binder (Abstract). This patent teaches that the fibrous covering is Kraft paper; a common covering for insulating building materials (column 2, lines 48-50). A person having ordinary skill in the art at the time of the invention was made would have found it obvious to have employed Kraft paper as the paper facing used on the exterior of the McGrath et al. invention. Claim 6 is rejected as it cites basis weights that are commonly used, and therefore obvious, in Kraft paper products

(http://www.cascades.com/cas/en/1_0/1_0_1/1_0_1_3/1_0_1_3_3_6.jsp, 10/15/04).

15. Claims 13-14 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath et al. in view of Long et al. McGrath et al. teach a paper facing may be applied to the

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insulation layer, but is silent as to the specifics of said paper (column 1, lines 40-41). As such, it is necessary and therefore obvious for the skilled artisan to look to the prior art for suitable paper, motivated by the expectation of successfully practicing the invention of McGrath et al. To that end, Long et al. disclose a fungicidal paper for use as a cover sheet for “gypsum wallboard and the like”, but fail to teach an insulative article comprising randomly oriented inorganic fibers bonded together with a binder (Abstract). Long et al. cite two basic approaches to incorporate the fungicide into the paper including directly adding the fungicide to the paper pulp (column 1, lines 37-40). A person having ordinary skill in the art at the time of the invention was made would have found it obvious to have incorporated the fungicide directly into the furnish pulp used to make the said cellulosic facing of the McGrath et al. invention providing the paper facing with fungicidal properties. One would have been motivated to do so to improve upon McGrath’s desire to obtain a microbe resistant product.

16. It should be noted that optimizing the amount or type of biocide included in the insulation article or restraining its content within set values are result effective variables. For example, manipulating the quantity of antifungal/ antimicrobial agent on the cellulosic facing to attain a predetermined value or be in accordance with a standard/test. This is also true of the selection of a particular biocide to behave as a slimicide. Biocide/fungicide selection is also a result effective variable. Therefore, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to have made the McGrath et al. invention to contain a antifungal/antimicrobial level of less than 200 ppm based on the dry weight of the cellulosic facing but able able to pass ASTM C1338, ASTM D-2020, TAPPI Test T487, or a combination thereof. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). McGrath et al. disclose the use of silver

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zeolyte as a fungicide/biocide to retard both fungal and microbial growth within the insulation article. In the present invention, one would have optimized the amount and type of antifungal/antimicrobial, motivated by the desire to obtain an insulation article that is resistant to fungal or microbial growth and compliant to said ASTM and TAPPI standards.

17. Claims 15-17 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath et al. in view of Long et al. in further view of Gluck et al. McGrath et al. teach a paper facing may be applied to the insulation layer, but is silent as to the specifics of said paper (column 1, lines 40-41). As set forth above, a person having ordinary skill in the art at the time of the invention was made would have found it obvious to have employed an adhesive (i.e. polymeric or bituminous) to adhere the insulation layer to the paper facing. To that end, Gluck et al. disclose an insulating laminate comprising a plastic foam core and fibrous sheet covering, but does not contain randomly oriented inorganic fibers bonded together with a binder (Abstract). This patent teaches that the fibrous covering is Kraft paper; a common covering for insulating building materials (column 2, lines 48-50). A person having ordinary skill in the art at the time of the invention was made would have found it obvious to have employed Kraft paper as the paper facing used on the exterior of the McGrath et al. invention motivated by the desire to successfully practice the invention of McGrath et al. Claim 15 is rejected as it cites only basis weights that are commonly used in Kraft paper products

(http://www.cascades.com/cas/en/1_0/1_0_1/1_0_1_3/1_0_1_3_3_6.jsp, 10/15/04). Use of common basis weights for Kraft paper, for use in common applications is deemed obvious.

18. McGrath et al. disclose a fiberglass insulation comprising glass fibers, binder, and biocide (Abstract). The present patent also teaches that a paper facing may be applied to the

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insulation layer, but is silent as to how the facing is adhered to the layer of insulation (column 1, lines 40-41). As set forth above, a person having ordinary skill in the art at the time of the invention was made would have found it obvious to have employed an adhesive (i.e. polymeric or bituminous) to adhere the insulation layer to the paper facing. Gluck et al. teaches that the adhesive layer on the paper facing is to be moisture and air-impermeable thereby providing a vapor barrier for the present invention.

19. McGrath et al. disclose a fiberglass insulation comprising glass fibers, binder, and biocide, however do not explicitly suggest that the claimed article passes ASTM C1338 when exposed to a microorganism. It should be noted that optimizing the amount of biocide included in the insulation article to conform to a standard is a result effective variable. For example, optimizing the biocidal content would directly affect the ability of the insulation article to prevent microbial growth. Therefore, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to have made the insulation article of McGrath et al. able to pass ASTM C1338. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the amount and type of antifungal/antimicrobial, motivated by the desire to obtain an insulation article that is resistant to fungal or microbial growth.

20. The prior art made of record in the applicant's Information Disclosure Statement (PTO-1449) has been taken into consideration, but has not been relied upon in this Office Action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm



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